

## ENTERED

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/038,557A

DATE: 06/17/2002 TIME: 14:56:55

Input Set : A:\301dseq.002

135

Output Set: N:\CRF3\06172002\J038557A.raw

```
3 <110> APPLICANT: Fredeking, Terry M.
      4
             Ignatyev, George M.
      6 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TREATING HEMORRHAGIC VIRUS
             INFECTIONS AND OTHER DISORDERS
      9 <130> FILE REFERENCE: 24881-301D
     11 <140> CURRENT APPLICATION NUMBER: US/10/038,557A
C--> 12 <141> CURRENT FILING DATE: 2002-06-05
     14 <150> PRIOR APPLICATION NUMBER: 09/840,707
     15 <151> PRIOR FILING DATE: 2001-04-23
     17 <150> PRIOR APPLICATION NUMBER: 09/562,979
     18 <151> PRIOR FILING DATE: 2000-04-27
     20 <150> PRIOR APPLICATION NUMBER: 60/198,210
     21 <151> PRIOR FILING DATE: 1999-04-27
     23 <160> NUMBER OF SEQ ID NOS: 26
     25 <170> SOFTWARE: PatentIn Ver. 2.0
     27 <210> SEO ID NO: 1
    28 <211> LENGTH: 271
     29 <212> TYPE: PRT
     30 <213> ORGANISM: Homo sapiens
     32 <220> FEATURE:
     33 <223> OTHER INFORMATION: Recombinant Interleukin 1-alpha
     35 <300> PUBLICATION INFORMATION:
    36 <308> DATABASE ACCESSION NO: AAA59134/GenBank
     37 <309> DATABASE ENTRY DATE: 1994-12-13
     39 <400> SEOUENCE: 1
        Met Ala Lys Val Pro Asp Met Phe Glu Asp Leu Lys Asn Cys Tyr Ser
     41
        Glu Asn Glu Glu Asp Ser Ser Ile Asp His Leu Ser Leu Asn Gln
     43
                     20
                                         25
        Lys Ser Phe Tyr His Val Ser Tyr Gly Pro Leu His Glu Gly Cys Met
     47
                                     40
     49
        Asp Gln Ser Val Ser Leu Ser Ile Ser Glu Thr Ser Lys Thr Ser Lys
    50
                                 55
                                                     60
        Leu Thr Phe Lys Glu Ser Met Val Val Val Ala Thr Asn Gly Lys Val
                             70
                                                 75
        Leu Lys Lys Arg Arg Leu Ser Leu Ser Gln Ser Ile Thr Asp Asp
                                             90
    58
        Leu Glu Ala Ile Ala Asn Asp Ser Glu Glu Glu Ile Ile Lys Pro Arg
    59
                                        105
    61
        Ser Ala Pro Phe Ser Phe Leu Ser Asn Val Lys Tyr Asn Phe Met Arg
    62
                                    120
    64
        Ile Ile Lys Tyr Glu Phe Ile Leu Asn Asp Ala Leu Asn Gln Ser Ile
```

130

65

RAW SEQUENCE LISTING DATE: 06/17/2002 PATENT APPLICATION: US/10/038,557A TIME: 14:56:55

Input Set : A:\301dseq.002

```
Ile Arg Ala Asn Asp Gln Tyr Leu Thr Ala Ala Ala Leu His Asn Leu
67
68
                        150
                                             155
    Asp Glu Ala Val Lys Phe Asp Met Gly Ala Tyr Lys Ser Ser Lys Asp
71
                    165
                                        170
73
    Asp Ala Lys Ile Thr Val Ile Leu Arg Ile Ser Lys Thr Gln Leu Tyr
74
                180
                                    185
76
    Val Thr Ala Gln Asp Glu Asp Gln Pro Val Leu Leu Lys Glu Met Pro
                                200
                                                     205
    Glu Ile Pro Lys Thr Ile Thr Gly Ser Glu Thr Asn Leu Leu Phe Phe
                            215
                                                 220
    Trp Glu Thr His Gly Thr Lys Asn Tyr Phe Thr Ser Val Ala His Pro
                        230
    Asn Leu Phe Ile Ala Thr Lys Gln Asp Tyr Trp Val Cys Leu Ala Gly
85
86
                                         250
                    245
    Gly Pro Pro Ser Ile Thr Asp Phe Gln Ile Leu Glu Asn Gln Ala
88
89
                260
                                    265
93 <210> SEQ ID NO: 2
94 <211> LENGTH: 269
95 <212> TYPE: PRT
96 <213> ORGANISM: Homo sapiens
98 <220> FEATURE:
99 <223> OTHER INFORMATION: Interleukin-1 beta (catabolin)
101 <300> PUBLICATION INFORMATION:
102 <308> DATABASE ACCESSION NO: P01584/Genbank
103 <309> DATABASE ENTRY DATE: 1986-07-21
105 <400> SEQUENCE: 2
    Met Ala Glu Val Pro Lys Leu Ala Ser Glu Met Met Ala Tyr Tyr Ser
    Gly Asn Glu Asp Asp Leu Phe Phe Glu Ala Asp Gly Pro Lys Gln Met
109
110
                                      25
                  20
112
    Lys Cys Ser Phe Gln Asp Leu Asp Leu Cys Pro Leu Asp Gly Gly Ile
115
    Gln Leu Arg Ile Ser Asp His His Tyr Ser Lys Gly Phe Arg Gln Ala
116
                              55
118
    Ala Ser Val Val Val Ala Met Asp Lys Leu Arg Lys Met Leu Val Pro
119
                          70
121 Cys Pro Gln Thr Phe Gln Glu Asn Asp Leu Ser Thr Phe Phe Pro Phe
                                          90
124 Ile Phe Glu Glu Glu Pro Ile Phe Phe Asp Thr Trp Asp Asn Glu Ala
125
                 100
                                     105
127
    Tyr Val His Asp Ala Pro Val Arg Ser Leu Asn Cys Thr Leu Arg Asp
                                 120
    Ser Gln Gln Lys Ser Leu Val Met Ser Gly Pro Tyr Glu Leu Lys Ala
130
131
                             135
                                                 140
    Leu His Leu Gln Gly Gln Asp Met Glu Gln Gln Val Val Phe Ser Met
133
134
                         150
                                             155
    Ser Phe Val Gln Gly Glu Glu Ser Asn Asp Lys Ile Pro Val Ala Leu
                                         170
139 Gly Leu Lys Glu Lys Asn Leu Tyr Leu Ser Cys Val Leu Lys Asp Asp
```

 RAW SEQUENCE LISTING
 .
 DATE: 06/17/2002

 PATENT APPLICATION:
 US/10/038,557A
 TIME: 14:56:55

Input Set : A:\301dseq.002

| 140        |       |                                      |      | 180   |        |       |       |                | 185              |              |          |             |                      | 190                   |       |            |
|------------|-------|--------------------------------------|------|-------|--------|-------|-------|----------------|------------------|--------------|----------|-------------|----------------------|-----------------------|-------|------------|
| 142        | Lys   | Pro                                  | Thr  | Leu   | Gln    | Leu   | Glu   | Ser            | Val              | Asp          | Pro      | Lys         | Asn                  | Tyr                   | Pro   | Lys        |
| 143        |       |                                      | 195  |       |        |       |       | 200            |                  |              |          |             | 205                  |                       |       |            |
| 146        | Lys   | Lys                                  | Met  | Glu   | Lys    | Arg   | Phe   | Val            | Phe              | Asn          | Lys      | Ile         | $\operatorname{Glu}$ | Ile                   | Asn   | Asn        |
| 147        |       | 210                                  |      |       | _      |       | 215   |                |                  |              |          | 220         |                      |                       |       |            |
| 149        | Lvs   | Leu                                  | Glu  | Phe   | Glu    | Ser   | Ala   | Gln            | Phe              | Pro          | Asn      | Trp         | Tvr                  | Ile                   | Ser   | Thr        |
| 150        | 225   |                                      |      |       |        | 230   |       |                |                  |              | 235      | _           | 1                    |                       |       | 240        |
| 152        |       | Gln                                  | Ala  | Glu   | Asn    |       | Pro   | Val            | Phe              | Leu          |          | Glv         | Thr                  | Lvs                   | Glv   |            |
| 153        |       |                                      |      |       | 245    |       |       |                |                  | 250          | 1        | 1           |                      | -1-                   | 255   | _          |
| 155        | Gln   | Agn                                  | Tlo  | Thr   |        | Phe   | Thr   | Met            | Gln              |              | Val      | Ser         | Ser                  |                       |       |            |
| 156        | 0111  | иор                                  | 110  | 260   | nsp    | THE   | 7 111 | 1100           | 265              | , 1 110      | 141      | 001         | DOL                  |                       |       |            |
|            | ∠210· | < CF                                 | מד כ |       | 3      |       |       |                | 205              |              |          |             |                      |                       |       |            |
|            |       | <210> SEQ ID NO: 3 <211> LENGTH: 569 |      |       |        |       |       |                |                  |              |          |             |                      |                       |       |            |
|            |       | <211> LENGTH: 569<br><212> TYPE: PRT |      |       |        |       |       |                |                  |              |          |             |                      |                       |       |            |
|            |       |                                      |      |       | Ilomo  | a 2 m | iana  |                |                  |              |          |             |                      |                       |       |            |
|            |       | <213> ORGANISM: Homo sapiens         |      |       |        |       |       |                |                  |              |          |             |                      |                       |       |            |
|            | <220  |                                      |      |       | 0.43 m |       | ~£.   | 3              | . 1- !           | 1            |          |             | m                    | ·<br>- <del>-</del> - |       |            |
|            |       |                                      |      |       |        |       |       |                | ıkın.            | -1 re        | ecep     | cor,        | тур                  | 5 T I                 | precu | ırsor      |
|            | <300  |                                      |      |       |        |       |       |                |                  |              |          |             |                      |                       |       |            |
|            | <308  |                                      |      |       |        |       |       |                |                  |              | ank      |             |                      |                       |       |            |
|            | <309  |                                      |      |       |        | DATI  | E: 19 | 990-0          | 04-01            | <u>l</u>     |          |             |                      |                       |       |            |
|            | <400  |                                      | _    |       |        |       |       |                |                  |              |          |             |                      |                       |       |            |
| 172        | Met   | Lys                                  | Val  | Leu   | Leu    | Arg   | Leu   | Ile            | Cys              | Phe          | Ile      | Ala         | Leu                  | Leu                   | Ile   | Ser        |
| 173        | 1     |                                      |      |       | 5      |       |       |                |                  | 10           |          |             |                      |                       | 15    |            |
| 175        | Ser   | Leu                                  | Glu  | Ala   | Asp    | Lys   | Cys   | Lys            | Glu              | Arg          | Glu      | Glu         | Lys                  | Ile                   | Ile   | Leu        |
| 176        |       |                                      |      | 20    |        |       |       |                | 25               |              |          |             |                      | 30                    |       |            |
| 178        | Val   | Ser                                  | Ser  | Ala   | Asn    | Glu   | Ile   | Asp            | Val              | Arg          | Pro      | Cys         | Pro                  | Leu                   | Asn   | Pro        |
| 179        |       |                                      | 35   |       |        |       |       | 40             |                  |              |          |             | 45                   |                       |       |            |
| 181        | Asn   | Glu                                  | His  | Lys   | Gly    | Thr   | Ile   | Thr            | Trp              | Tyr          | Lys      | Asp         | Asp                  | Ser                   | Lys   | ${	t Thr}$ |
| 182        |       | 50                                   |      | -     | _      |       | 55    |                | _                | _            | -        | 60          | _                    | ,                     | _     |            |
| 184        | Pro   | Val                                  | Ser  | Thr   | Glu    | Gln   | Ala   | Ser            | Arg              | Ile          | His      | Gln         | His                  | Lys                   | Glu   | Lys        |
| 185        | 65    |                                      |      |       |        | 70    |       |                | _                |              | 75       |             |                      | -                     |       | 80         |
| 187        | Leu   | Trp                                  | Phe  | Val   | Pro    | Ala   | Lvs   | Val            | Glu              | Asp          | Ser      | Glv         | His                  | Tvr                   | Tvr   | Cvs        |
| 188        | _     |                                      | -    |       | 85     |       | -     |                |                  | 90           |          | -           |                      | •                     | 95    | -          |
| 190        | Val   | Va1                                  | Ara  | Asn   |        | Ser   | Tvr   | Cvs            | Leu              | Ara          | Ile      | Lvs         | Ile                  | Ser                   | Ala   | Lvs        |
| 191        |       | ,                                    | 9    | 100   | 202    |       | -1-   | 0,12           | 105              | 5            |          | -1-         |                      | 110                   |       | -1-        |
| 193        | Phe   | Va 1                                 | Glu  |       | Glu    | Pro   | Δgn   | Leu            | Cys              | Tvr          | Asn      | Δla         | Gln                  |                       | Tle   | Phe        |
| 194        | 1110  |                                      | 115  | 11011 | Olu    | 110   | *1011 | 120            | C <sub>I</sub> S | + <i>1</i> - |          |             | 125                  |                       |       | 1 110      |
| 196        | Luc   |                                      |      | T.211 | Dro    | Val   | Δla   |                | Asp              | Glv          | Glv      | T.011       |                      | Cve                   | Pro   | Tur        |
| 197        | פענג  | 130                                  | Буз  | пец   | 110    | var   | 135   | OLY.           | пор              | GLY          | OLY      | 140         | Yux                  | Cys                   | 110   | - 7 -      |
| 199        | Mot   |                                      | Dho  | Dho   | Lvc    | λan   |       | λen            | Asn              | Glu          | T.au     | -           | T.v.e                | T.OII                 | Gln.  | Ψrn        |
| 200        | 145   | GIU                                  | FILE | FIIC  |        | 150   |       | ASII           | ASII             |              | 155      |             | цуз                  | neu                   | GIII  | 160        |
|            |       | T ***                                | 7.00 | Crrc  |        |       |       | T 011          | T 011            |              |          |             | Uic                  | Dho                   | Cor   |            |
| 202<br>203 | TAT   | гуз                                  | Asp  | CYS   |        | FIO   | пеп   | ьец            | Leu              | 170          | UDII     | TTG         | urz                  | LHE                   |       | ату        |
|            | 77- 7 | T                                    | 3    | 3     | 165    | T1 -  | **- 1 | <b>34</b> a.k. | 3                |              | 7.1.     | <b>a</b> 1  | T                    | TT 2                  | 175   | C1         |
| 205        | val   | гаг                                  | ASP  |       | ren    | тте   | νdΤ   | мет            | Asn              | ۷dl          | Ald      | GIU         | ьys                  |                       | Arg   | σтλ        |
| 206        | _     | _                                    | en 1 | 180   |        |       | ~     | <b></b>        | 185              | m            | <b>.</b> | <b>a</b> 1. | <b>.</b>             | 190                   | m     | D          |
| 208        | Asn   | Tyr                                  |      | Cys   | Hls    | Ala   | ser   |                | Thr              | туr          | ьeu      | стХ         |                      | GIN                   | Tyr   | Pro        |
| 209        |       |                                      | 195  |       |        |       | _,    | 200            | 1                | _            | ~ -      |             | 205                  | _                     | _     | -1         |
| 211        | Ile   |                                      | Arg  | Val   | Ile    | Glu   |       | Ile            | Thr              | Leu          | Glu      |             | Asn                  | Lys                   | Pro   | Thr        |
| 212        |       | 210                                  |      |       |        |       | 215   |                |                  |              |          | 220         |                      |                       |       |            |

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/038,557A

DATE: 06/17/2002
TIME: 14:56:55

Input Set : A:\301dseq.002

```
Arg Pro Val Ile Val Ser Pro Ala Asn Glu Thr Met Glu Val Asp Leu
214
                                              235
                         230
215
    225
    Gly Ser Gln Ile Gln Leu Ile Cys Asn Val Thr Gly Gln Leu Ser Asp
217
                                          250
218
                     245
    Ile Ala Tyr Trp Lys Trp Asn Gly Ser Val Ile Asp Glu Asp Asp Pro
220
                                     265
221
                 260
    Val Leu Gly Glu Asp Tyr Tyr Ser Val Glu Asn Pro Ala Asn Lys Arg
223
                                 280
224
    Arg Ser Thr Leu Ile Thr Val Leu Asn Ile Ser Glu Ile Glu Ser Arg
226
                                                  300
                             295
227
     Phe Tyr Lys His Pro Phe Thr Cys Phe Ala Lys Asn Thr His Gly Ile
229
                                              315
230
                         310
     Asp Ala Ala Tyr Ile Gln Leu Ile Tyr Pro Val Thr Asn Phe Gln Lys
232
                                          330
                     325
233
     His Met Ile Gly Ile Cys Val Thr Leu Thr Val Ile Ile Val Cys Ser
235
                                      345
236
     Val Phe Ile Tyr Lys Ile Phe Lys Ile Asp Ile Val Leu Trp Tyr Arg
238
                                 360
239
     Asp Ser Cys Tyr Asp Phe Leu Pro Ile Lys Ala Ser Asp Gly Lys Thr
241
                             375
242
     Tyr Asp Ala Tyr Ile Leu Tyr Pro Lys Thr Val Gly Glu Gly Ser Thr
244
                                              395
                         390
245
     Ser Asp Cys Asp Ile Phe Val Phe Lys Val Leu Pro Glu Val Leu Glu
                                          410
                     405
     Lys Gln Cys Gly Tyr Lys Leu Phe Ile Tyr Gly Arg Asp Asp Tyr Val
250
                                      425
                 420
251
     Gly Glu Asp Ile Val Glu Val Ile Asn Glu Asn Val Lys Lys Ser Arg
253
                                  440
254
     Arg Leu Ile Ile Leu Val Arg Glu Thr Ser Gly Phe Ser Trp Leu
256
257
     Gly Gly Ser Ser Glu Glu Gln Ile Ala Met Tyr Asn Ala Leu Val Gln
259
                                              475
                         470
     Asp Gly Ile Lys Val Val Leu Leu Glu Leu Glu Lys Ile Gln Asp Tyr
262
                                          490
263
                     485
     Glu Lys Met Pro Glu Ser Ile Lys Phe Ile Lys Gln Lys His Gly Ala
265
                                      505
266
                 500
     Ile Arg Trp Ser Gly Asp Phe Thr Gln Gly Pro Gln Ser Ala Lys Thr
268
                                  520
269
     Arg Phe Trp Lys Asn Val Arg Tyr His Met Pro Val Gln Arg Arg Ser
                             535
     Pro Ser Ser Lys His Gln Leu Leu Ser Pro Ala Thr Lys Glu Lys Leu
274
                                              555
                         550
275
     Gln Arg Glu Ala His Val Pro Leu Gly
277
278
280 <210> SEQ ID NO: 4
281 <211> LENGTH: 398
282 <212> TYPE: PRT
283 <213> ORGANISM: Homo sapiens
285 <220> FEATURE:
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/038,557A

DATE: 06/17/2002
TIME: 14:56:55

Input Set : A:\301dseq.002

```
286 <223> OTHER INFORMATION: Interleukin-1 receptor, Type II precursor
288 <300> PUBLICATION INFORMATION:
289 <308> DATABASE ACCESSION NO: P27930/GenBank
290 <309> DATABASE ENTRY DATE: 1993-08-01
292 <400> SEQUENCE: 4
     Met Leu Arg Leu Tyr Val Leu Val Met Gly Val Ser Ala Phe Thr Leu
293
294
                                           10
     Gln Pro Ala Ala His Thr Gly Ala Ala Arg Ser Cys Arg Phe Arg Gly
296
297
     Arg His Tyr Lys Arg Glu Phe Arg Leu Glu Gly Glu Pro Val Ala Leu
299
300
                                   40
              35
     Arg Cys Pro Gln Val Pro Tyr Trp Leu Trp Ala Ser Val Ser Pro Arg
302
                              55
     Ile Asn Leu Thr Trp His Lys Asn Asp Ser Ala Arg Thr Val Pro Gly
305
306
     Glu Glu Glu Thr Arg Met Trp Ala Gln Asp Gly Ala Leu Trp Leu Leu
308
309
     Pro Ala Leu Gln Glu Asp Ser Gly Thr Tyr Val Cys Thr Thr Arg Asn
311
312
                 100
                                      105
     Ala Ser Tyr Cys Asp Lys Met Ser Ile Glu Leu Arg Val Phe Glu Asn
314
                                  120
                                                      125
315
             115
     Thr Asp Ala Phe Leu Pro Phe Ile Ser Tyr Pro Gln Ile Leu Thr Leu
317
                             135
                                                  140
318
     Ser Thr Ser Gly Val Leu Val Cys Pro Asp Leu Ser Glu Phe Thr Arg
320
                         150
                                              155
     Asp Lys Thr Asp Val Lys Ile Gln Trp Tyr Lys Asp Ser Leu Leu Leu
                     165
                                          170
     Asp Lys Asp Asn Glu Lys Phe Leu Ser Val Arg Gly Thr Thr His Leu
326
327
                                      185
     Leu Val His Asp Val Ala Leu Glu Asp Ala Gly Tyr Tyr Arg Cys Val
329
                                  200
                                                      205
330
     Leu Thr Phe Ala His Glu Gly Gln Gln Tyr Asn Ile Thr Arg Ser Ile
332
                                                  220
333
                              215
     Glu Leu Arg Ile Lys Lys Lys Glu Glu Thr Ile Pro Val Ile Ile
335
                          230
                                              235
336
     Ser Pro Leu Lys Thr Ile Ser Ala Ser Leu Gly Ser Arg Leu Thr Ile
338
339
                     245
                                          250
     Pro Cys Lys Val Phe Leu Gly Thr Gly Thr Pro Leu Thr Thr Met Leu
341
                                      265
342
                 260
344
     Trp Trp Thr Ala Asn Asp Thr His Ile Glu Ser Ala Tyr Pro Gly Gly
345
                                  280
                                                      285
     Arg Val Thr Glu Gly Pro Arg Gln Glu Tyr Ser Glu Asn Asn Glu Asn
                              295
                                                  300
348
     Tyr Ile Glu Val Pro Leu Ile Phe Asp Pro Val Thr Arg Glu Asp Leu
350
                                              315
351
                         310
     His Met Asp Phe Lys Cys Val Val His Asn Thr Leu Ser Phe Gln Thr
353
                                          330
354
                     325
     Leu Arg Thr Thr Val Lys Glu Ala Ser Ser Thr Phe Ser Trp Gly Ile
356
                                                           350
357
                 340
                                      345
```

VERIFICATION SUMMARY

DATE: 06/17/2002

PATENT APPLICATION: US/10/038,557A

TIME: 14:56:56

Input Set : A:\301dseq.002

Output Set: N:\CRF3\06172002\J038557A.raw

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:838 M:283 W: Missing Blank Line separator, <220> field identifier